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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,661	08/24/2001	Kenji Oshima	2001_1135A	1004
513	7590	03/08/2004	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P.			SHOSHO, CALLIE E	
2033 K STREET N. W.			ART UNIT	
SUITE 800			PAPER NUMBER	
WASHINGTON, DC 20006-1021			1714	

DATE MAILED: 03/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/935,661

Applicant(s)

OSHIMA, KENJI

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. All outstanding rejections except for those described below are overcome by applicant's amendment filed 11/24/03.

It is noted that the substitute specification filed 11/24/03 has been entered given that applicant has provided a statement that the substitute specification includes no new matter and given that applicant has provided a marked-up copy of the substitute specification showing the matter being added to and being deleted from the specification.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1 and 3-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Baker et al. (U.S. 5,698,616) taken in view of the evidence in Ueda et al. (U.S. 4,051,052).

The rejection is adequately set forth in paragraph 5 of the office action mailed 8/25/03 and is incorporated here by reference.

Response to Arguments

4. Applicants' arguments filed 11/24/03 have been fully considered but they are not persuasive.

Specifically, applicants argue that Baker et al. is not a relevant reference against the present claims given that Baker et al. do not disclose that the polymer is soluble in the solvent(dispersant) as required in the present claims.

In the office action mailed 8/25/03, the examiner argued that while it is true that Baker et al. disclose co(polymeric) core that is insoluble in aliphatic hydrocarbon solvent, it is noted that the ink of Baker et al. contains organosol which comprises the co(polymeric) core as well as graft stabilizer which is bonded or grafted to the core. It is the graft stabilizer that includes repeating units of alkyl (meth)acrylate as presently claimed. Further, Baker et al. disclose that the graft stabilizer is soluble or marginally insoluble in the aliphatic hydrocarbon solvent. Baker et al. also disclose that the graft stabilizer has absolute difference in Hildebrand solubility parameter between $1.5\text{--}3\text{ MPa}^{1/2}$ relative to the solvent. While the core portion of the organosol is insoluble, the graft stabilizer portion of the organosol is soluble in the aliphatic hydrocarbon solvent. Therefore, it is clear that polymer, i.e. organosol, of Baker et al. is at least partially soluble in the aliphatic hydrocarbon solvent due to the presence of the graft stabilizer.

In response, applicants argue that given that Baker et al. use a polymer having a value of the Hildebrand solubility parameter between $2.5\text{--}3$ (claim 1) or $2.3\text{--}3$ (col.4, line 29), the polymer of Baker et al. is insoluble in the solvent.

However, it is noted that col.6, lines 44-48 of Baker et al. disclose that the graft stabilizer portion of the organosol is soluble or marginally insoluble while col.6, lines 61-63 disclose that the selected stabilizer has some finite solubility in the carrier liquid.

Further, as set forth in col.7, lines 1-10 of Baker et al., when the absolute difference in the Hildebrand solubility parameter is less than approximately $1.5\text{ MPa}^{1/2}$, the solute will exist as a

true solution or in a highly solvated state, when the absolute difference in the Hildebrand solubility parameter exceeds $3 \text{ MPa}^{1/2}$, the solute will phase separate from the dispersant forming an insoluble mass, and when the Hildebrand solubility parameter is between $1.5 \text{ MPa}^{1/2}$ and $3 \text{ MPa}^{1/2}$, the solute is weakly solvated or marginally insoluble. As pointed to by applicant, while the core portion of the organosol is insoluble, the graft stabilizer portion possesses Hildebrand solubility parameter of $2.3\text{-}3 \text{ MPa}^{1/2}$. Applicant argues that this disclosure shows that the polymer of Baker et al. is insoluble. However, this argument is not understood given that Baker et al. disclose that Hildebrand solubility parameter of $1.5\text{-}3 \text{ MPa}^{1/2}$ corresponds to polymer which is weakly solvated or marginally insoluble. That is, the graft stabilizer has some degree of solubility in the solvent. If the Hildebrand solubility were greater than $3 \text{ MPa}^{1/2}$, then the graft stabilizer would be insoluble as argued by applicant. As disclosed by Baker et al., Hildebrand solubility parameter such as that disclosed by the graft stabilizer of Baker et al. indicates that the polymer is somewhat soluble in the solvent.

Applicants argue that only the terms “soluble” and “insoluble” have chemical meanings and the terms “partially soluble” or “degree of solubility” as used by the examiner have no meaning. This argument is not understood given that every polymer is not completely soluble or insoluble in solvent. A polymer can have partial solubility in a solvent when some part or some amount of the polymer is soluble in the solvent. Further, as disclosed by Baker et al., a solute can be “marginally” insoluble or possess some finite solubility. Depending on the value of the Hildebrand solubility parameter, the solute can be considered strongly solvated or weakly solvated. Given that the organosol comprises the co(polymeric) core which is insoluble in the

solvent as well as graft stabilizer which is soluble in the solvent, it is the examiner's position that the organosol is soluble in the solvent due to the presence of the graft stabilizer.

Based on the above discussion, it is the examiner's position that the organosol of Baker et al. does possess some solubility in the solvent. Given that the present claims only require that the polymer is soluble and thus, are open to all degrees of solubility including complete solubility and partial solubility and given that the organosol of Baker et al. is partially soluble in solvent due to the presence of the graft stabilizer which Baker et al. describes as soluble in the solvent (col.6, lines 44-48), it is the examiner's position that Baker et al. meet the requirements of the present claims.

Applicants also argue that Baker et al. is not a relevant reference against the present claims given that Baker et al. only disclose that the charge director or metal salt of fatty acid "may be added" which is in contrast to the present claims which always require the use of metal salt of fatty acid.

However, this disclosure by Baker et al. merely states that in one embodiment, the ink of Baker et al. contains metal salt of fatty acid while in another embodiment, the ink does not contain metal salt of fatty acid. When the ink does contain the metal salt of fatty acid, the ink meets all the requirements of the present claims which is why Baker et al. is used to reject the present claims under 35 USC 102. Further, it is noted that claim 2 of Baker et al. disclose that the charge director or metal salt of fatty acid is in fact used in the ink.

Applicants also argue that the examples of Baker et al. disclose the use of metal salt of octanoic acid not naphthenic acid. However, “applicant must look to the whole reference for what it teaches. Applicant cannot merely rely on the examples and argue that the reference did not teach others.” In re Courtright, 377 F.2d 647, 153 USPQ 735,739 (CCPA 1967). Further, “nonpreferred disclosures can be used. A nonpreferred portion of a reference disclosure is just as significant as the preferred portion in assessing the patentability of claims.” In re Nehrenberg, 280 F.2d 161, 126 USPQ 383 (CCPA 1960). A fair reading of the reference as whole clearly discloses the use of metal salt of fatty acid wherein the fatty acid is naphthenic acid. Further, it is noted that only present claim 3 requires the use of naphthenic acid. The remaining claims only require the use of metal salt of fatty acid wherein the fatty acid comprises 6 to 12 carbon atoms. Metal salt of octanoic acid clearly meets this requirement.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

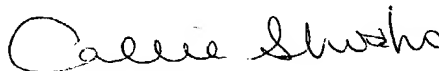
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
2/21/04